FIGHTS MENTAL ILLS OF COLLEGE YOUTHS

Rockefeller Foundation Aiding Students in Orientation, Says Annual Report.

WAGES YELLOW FEVER WAR

Struggle Carried on Against Odds in 1926—Survey Shows Need for Health Work in Rural Areas.

The Rockefeller Foundation, which has been fighting yellow fever, malaria, hookworm, sleeping sickness and other diseases in all parts of the world, has undertaken a campaign also against mental and nervous diseases among college students.

"These young people get upset in many ways," said the instalment of the foundation's annual report which was made public yesterday. "Some cannot study, others become bashful and retiring, a few develop bullying habits.

"A number of students, the pride of fond parents and the heroes of small towns, suffer acutely from a feeling of inferiority and failure in a large university setting. It is the task of the mental specialist to interpret to the student his behavior and to show him that he is concealing from himself the facts he ought to face; in short, to help him get adjusted to his new life."

The Rockefeller Foundation, which spent $9,741,474 in promoting world health in 1926, carried on war against yellow fever on many fronts, as vividly told in the report. The foundation is fighting a battle to the death against yellow fever. It has abolished the disease over vast areas in South America and Africa and it appeared to be rapidly approaching extinction, but during 1926 it flared up disconcertingly.

Experts' Plans Upset.

"It seems odd," said the report, "that fleeing rebels, pursued by loyal troops, should upset the plans of yellow fever experts, but that is just what happened last year in Brazil.

"A systematic attempt, organized by Gorgas in 1918 under foundation auspices, to put an end to the threat of yellow fever appeared to be reaching its goal in the Americas. Year by year the disease was successfully attacked. It disappeared from Guayaquil in Ecuador; epidemics in Peru and Colombia were promptly controlled; Central America was freed; Mexico took effective action.

"In 1923 the Brazilian Government decided to control in the north what it had banished from the south a dozen years before. The International Health Board accepted an invitation to help with men and funds. Work in coastal cities and towns was pushed to such good purpose that by the end of 1925 success seemed certain. During all that year only three cases were reported, and concerning one of these the doctors were doubtful. But in the Summer of 1926, just when victory was to be celebrated, word came of a few cases here and there and then of epidemics in the back country. The unexpected had happened.

"To understand what occurred one must have in mind the way in which yellow fever spreads. A female mosquito, the Stegomyia, drawing the blood of a person who is in the early stages of the disease, becomes infected and ten days later can pass on the infective agent to those who have never had the malady. One attack means either death or immunity. The mosquito, a highly domestic creature, deposits her eggs in water containers in or near human

dwellings. The eggs hatch into larvae from which the mosquitoes develop. The average time required for this process is about ten days.

Methods of Combat.

"The chief methods of combating yellow fever are quite obviously either denying the Stegomyia access to the kind of water she requires or destroying her larvae before they change into adult mosquitos. A modern-piped water supply, the surest protection, is often not available in places where yellow fever occurs. Resort must be had to the screening of tanks, to the use of small fish which eat eggs and larvae, to systematic periodic scrutinizing of water containers. An effective method of organization and a technique of control have been worked out. As soon as mosquito breeding has been reduced to a certain minimum the disease cannot spread; it is often described as burning itself out. Non-immune persons may be thought of as fuel, a few infected mosquitos as sparks from smoldering embers.

"What happened in Brazil may be compared to the flaring up of a dying fire when fresh fuel is added. The fever had been controlled in the cities of the coast, but in the back country there were places in which it had not had time to burn itself out. The rebels and troops supplied fresh fuel and the flames sprang up. But control was quickly reestablished, and by the end of 1926 the outlook was again hopeful. Vigilance will be maintained until it seems certain that all danger of another outbreak has passed.

"For some time it has been suspected that the original home of yellow fever might have been West Africa and that the slave-ships, with mosquitoes breeding in the water-butts, might have carried it to the New Work. In 1920 the foundation sent a temporary commission, originally headed by Gorgas, who died in London on the way out, to make a preliminary survey of the situation in West Africa. It was on the recommendation of this group that a new staff, the Yellow Fever Commission of the International Health Board of the Rockefeller Foundation, has taken up quarters at Lagos, Nigeria, for a thorough study of the yellow fever problem on the West Coast.

Malaria Control Difficult.

"Unlike the home-loving Stegomyia, the Anopheles, which carries malaria, is a confirmed gadabout. She deposits her eggs at a distance in slowly running streams, in backwaters full of vegetation, along the edges of lakes, in ponds, in standing pools by country well-heads. She can even make her way between large stones to underlying ground water. Then, too, there are more than 100 kinds of these anophelines, with very different breeding habits and powers of flight. From these facts one can easily see that malaria control is far from simple. Each locality must be patiently studied to find out what kind or kinds of anophelines are guilty, where and how they are breeding, how far they are flying, what blood meals they prefer—animal or human.

"The methods of combating malaria are all based upon the idea of breaking the circuit between the person with malaria germs in his blood, the infected and infecting mosquito, and the non-malarial individual. Fortunately, quinine properly and persistently taken will usually cure the carrier. Efficient screening of houses offers a good deal of protection. Strategically placed pigsties and horse or cow-barns will deflect a great many anophelines from near-by houses. But valuable as these methods are and indispensable as quinine is in the early stages of control, the surest protection lies in preventing the breeding of anophelines.

"Of late the dusting of breeding-places with a powder composed of one part of paris green (known in Europe as Schweinfurth green) and 100 parts of sifted road dust has proved simple, cheap, and remarkably effective. Originating with the United States Public Health Service, this plan has been tried in Europe with the aid of the foundation. In Italy a semi-official station for com-

bating malaria was helped to test the method at first in two towns in Carabria and Sardinia and later during 1926 in seven other places. The results are gratifying and seem to show that the control of mosquito breeding is of fundamental importance in malaria prevention.

"Besides aiding the Italian projects, the foundation during 1926 contributed to malaria programs of control or survey in nine States of the United States, continued cooperation with Porto Rico and Brazil, began work in Argentina, made surveys and started control measures in the Province of Caceres, Spain, lent an engineer for drainage projects in Palestine, made further tests of control methods and costs in the Philippine Islands, opened a new research and training quarters for malaria workers at Edenton, N. C., continued aid to other stations in Italy, Corsica and Alabama, and gave funds for malaria research at two American universities.

Fighting Hookworm Disease.

"Hookworm disease has from the outset played a leading rôle in the public health work of the foundation. During 1926, if one includes surveys, routine control and training of personnel, this disease was dealt with by the foundation in Jamaica, Porto Rico, Mexico, Nicaragua, Guatemala, Panama, Costa Rica, Colombia, Paraguay, Spain, India, Ceylon, Java, Siam, the Seychelles, the Straits Settlements, Sarawak, certain of the South Sea Islands and at a training and research station in Alabama.

"Recently studies of soils carried on largely by experts of the foundation's International Health Board or under its auspices have thrown more light on the nature of the hookworm problem. The little worms like a loose sandy earth, in which they find protection and can go down for he moisture which they must have. In a close-textured soil, like clay, they cannot prosper. Thus the need of control becomes largely a question of geology. The health officer, so far as hookworm disease goes, can safely neglect areas because he knows that infestation cannot begin or continue under the given conditions of soil, temperature and moisture. Other studies have shown a significant relation between the prevalence of hookworm disease and economic conditions. In Florida, for example, the soil and climate are almost uniformly favorable to the development of hookworms, but the actual amount of infestation varies directly with the wealth or poverty of the population, as revealed by per-capita tax valuations and other tests. In well-to-do modern communities sanitation and shoes are a protection against hookworm parasites.

"For obvious reasons modern health organizations appeared first in cities. There the demands for sanitation and control of communicable diseases were most insistent. Recently, in the United States especially, the health needs of the rural regions have been pressing upon the attention of the authorities. Urban sickness and death-rates have fallen relatively more rapidly than those of the countryside. Examinations of school children have disclosed more defects among rural pupils than among their city contemporaries. Other indications have stressed the importance of giving more need to village and farm folk. Much the same state of things is to be found in many countries of Europe, Central and South America and the Far East.

County Units Increase.

"The anti-hookworm campaigns of the foundation's Health Board in the Southern States led naturally to the development of the full-time county health organization with an average annual budget of $10,000, and with a health officer, a sanitary inspector, a visiting nurse and an office clerk as a minimum staff. Since 1916 the number of such county units in the United States has increased from 15 to 329. During 1926 the foundation contributed on the average about 16 per cent. of the whole to the budgets of eighty-four of these organizations, under a plan by which contributions annually decrease until the entire project is maintained by local and State funds.

"In other countries, too, local health organizations have begun to spring up in response to local needs. With many of these the foundation has cooperated, not by seeking to impose an American plan upon a foreign community but by helping to apply certain principles to an often quite different situation.

"There are incorrigibly hopeful people who hail science as a means of social salvation. Forgetting what happened only the other day, they look forward confidently to a world saved from want and disease and unified by a spirit of brotherhood and good-will. How different the outlook of another group who see in indiscriminate medical care and the prevention of disease only the thwarting of natural selection by the preservation of the unfit, the handicapping of superior races, and the hastening of war through overpopulation!

"Between the greeters of the millennium and the prophets of disease are to be found those who carry on by taking what seems to be the wisest next step.

"Quite frankly taking this middle course, the Rockefeller Foundation seeks to increase and distribute knowledge, to promote organization nationally and internationally, to improve professional efficiency, to deepen a sense of comradeship in science and thus to further its character aim, 'the well-being of mankind throughout the world.'"